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ABSTRACT

The project described in this report was begun with the belief that elementary language instruction can be speeded up and made far more pleasant if initial emphasis is given to comprehension and if the requirement to use language productively, in speech or writing, is postponed until a fair comprehension ability has been achieved. It was also felt that a good deal of the drill required for instilling a basic comprehension ability could be mechanized. To achieve this end, equipment was designed and built that students can operate by themselves and lessons were designed and recorded that are compatible with the machine. Machine and lessons together were tried out on a first year Indonesian class at an American university. The progress of this project to date is assessed, and hopeful plans for the future are set forth. (Author/JB)

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FINAL REPORT

Machine Aided Instruction in Aural Comprehension of Indonesian

Grant Number G00-77-01121

U.S. Department of Education
(Authority: Title VI, Section 602, of the National Defense Education Act of 1958, as amended)

Principal Investigators: Robbins Burling
and A.L. Becker

Department of Linguistics
University of Michigan
Ann Arbor, Michigan 48103

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NARRATIVE

1. Introduction

As explained at length, in our original proposal (and in Appendix 1, "Theoretical Background," that has been adapted from the proposal and attached to this report), we began our project in "Machine Aided Instruction in Aural Comprehension of Indonesian" with the belief that elementary language instruction could be speeded up and also made far more pleasant if initial emphasis was given to comprehension and if the requirement to use language productively, in either speech or writing, was postponed until a fair comprehension ability had been achieved. Believing this, we also felt that a good deal of the drill required for instilling a basic comprehension ability could be mechanized. To achieve this end, we have designed and built equipment that students can operate by themselves, we have designed and recorded lessons that are compatible with the machine and tried them out in the first year Indonesian class at the University of Michigan in 1977-78, we have tried to assess our progress to date, and we have made hopeful plans for the future. Each of these four phases of our work deserves to be described.

2. Equipment Design

Our equipment is described in some detail in Appendix 2. Briefly, it harnesses a Phi-Deck tape drive to a Kin-One microprocessor in a self-contained unit that sits on a desk and can be operated independently by the student. The equipment has a cassette-well into which the student loads a standard tape cassette on which has been recorded the lesson on which he wishes to work. The student controls the tape by

means of a twenty-button touch pad. After a start-up sequence, the student hears a "frame" which may consist of a single word, a short phrase or sentence, or in a few cases a short story, in the Indonesian language. When the frame has been completed, the tape stops until the student responds. He is able to call for a repeat of the frame if he wants to, or he can indicate his understanding of the frame by selecting one of several buttons on the touch pad. If he selects the correct button, display lights shine with a series of "C's" but if he makes an error, the lights show a series of "E's" instead. He then has a chance to pause and think over what he has heard and what he has learned, and when he is ready for another frame he pushes the "+" button. If an error had been made, the same frame will repeat, and it will keep repeating as long as the student continues to respond incorrectly. When, either by good luck or by cleverness, the student finally pushes the correct button, a different frame will be heard. (14 of the 20 buttons are possible answers. The other six are control buttons for starting, stopping, rewinding, etc.) When a correct response follows an error, the machine backs up one frame, thus giving the student extra practice, and if that is answered correctly the tape advances again to the frame on which the mistake had been made. The student then has one more review of the frame on which he had made the mistake, and if he then gets that frame correct, he will then advance to a new frame. If he makes no mistakes, he will progress steadily through the lesson. If he resorts to random guessing, he will slowly back up. He cannot advance without paying close attention.

The basic equipment was built during the summer of 1978 and it became operational just in time for the beginning of fall classes. The final

assembly was done in something of a rush and it had, and still has, a number of defects. First, when originally put into operation, it offered no means by which a student could call for a frame to repeat (unless he deliberately made an error) but within the first two or three weeks of the term, Legien, the technician, was able to modify the program to allow repeats. Second, the loading of answers has been considerably more cumbersome than would be ideal. Our cassettes come in pairs. One of these (which we call the "Language tape") has the actual samples of language recorded upon it. The second tape has the answers. Before using the language tape of his choice, the student must use a small auxiliary tape recorder to load the answers from the answer tape into the micro-processor. This is a fairly cumbersome process, involving several steps and offering considerable opportunity for error. Through the fall term, moreover, it was also a time-consuming process, since once the mechanism was set into operation it took some time for the answers to be loaded into the computer. Early in the second term a modified and much more compact program was developed and this has greatly speeded up the loading of the answers. This makes the operation of the equipment a good deal faster, but it still requires the sequence of steps, and a better way of supplying the answers would certainly be preferable.

A third problem with the equipment has been a set of miscellaneous bugs. There were times when the equipment seemed to have a mind of its own. It would occasionally fast forward for no apparent reason, or the answers would get out of sync with the frames, or various other mysteries would arise. A major cause of these problems has turned out to be stray electrical signals, probably coming in through the power cord -- static

that is read by our overly sensitive equipment as commands. Progressive modification of the equipment, and increasing skill on the part of the users, has gradually reduced the frequency of these interfering events, but they have not yet been entirely eliminated.

Finally, we had two more alarming crises. Once, for reasons still unknown, a tape got thoroughly tangled around the capstan of the tape drive and required extensive surgery, and once a capacitor burned in a haze of alarming blue smoke. In both cases we successfully repaired the equipment, but not before a moment of panic.

Notwithstanding these various problems, we now have, in hand, a functioning apparatus. The components that we hoped would be compatible with one another have been united into a usable piece of equipment and they are performing with increasing reliability. By necessity, the bulk of our mechanical work was done during the summer of 1977 before the class actually began, and work since September has been primarily one of maintenance and refinement of the machine program in order to make it more flexible and responsive to the student user. Barry Legien, the technician to whose ingenuity we are indebted for building the equipment, has written a more technical description of the equipment that is added to this report as Appendix 2. He, of course, has learned a great deal in the process of designing and building it, and he could build a second model in a fraction of the time that went into the first model. If we are able to build another model, however, we will want it to be modified in the direction of increased flexibility rather than being a simple duplicate. (See section 5, "Future Plans," below.)

3. Lesson Design

A. L. Becker, Patricia Henry, and Joyce Tomasowa wrote materials that are grouped under 31 "Lessons". The content of each lesson is summarized in Appendix 3. Most lessons require two, or occasionally three, cassettes, and all together we have 59 language cassettes, each with a companion answer tape. Most cassettes have between 20 and 60 frames, but a few have more and a very few have less. Since the frames vary in length from a single word to a story, however, the number of frames is not a very good indication of the length of a tape, and the volume of lessons can only be appreciated by inspecting the transcripts of the lessons.

Production of the lessons proved to be an extraordinarily complex task, but it was also a peculiarly intriguing one. Each lesson had to be processed through the following steps: 1) Initial consultation about the general sequence of materials, and discussion about which new words and constructions would be included in each lesson, etc. 2) Writing the sequence of frames usually in conjunction with some sort of picture or pictures that would illustrate the materials of the lesson.

3) Typing transcripts of the lessons clearly enough to allow fluent reading. 4) A recording session (conducted at the sound studio of the Language Laboratory under the watchful eye of the Lab's Sound Technician, James Bixler) in which a native Indonesian speaker would read the transcript, and either the same speaker or one of us would read the occasional English instructions that are included in the lessons. 5) Transferring the lessons from the master tape onto a cassette. 6) Producing the answer tape corresponding to the lesson.

Lesson design involved a number of interesting problems and dilemmas. The problems of lesson design are the subject of the first publication that is expected to emerge from this project. This paper will appear in a volume to be edited by Professor Harris Winitz of the University of Missouri.

We will only summarize the high points of that article here.

We have used a variety of formats, trying to sustain interest by making the lessons as varied as possible. In the simplest case we have simply recorded Indonesian words which the student must identify with numbered pictures. He presses the button on the touch pad with the number of the picture to which he believes the word refers. This is a relatively dull but efficient way to drill vocabulary. In other cases we have given sentences that may be either true or false of the situation in a picture and the student presses button "1," if he believes it is true, or button "2," if he believes the sentence is false. In still other cases we give a sequence of pictures rather like a comic strip. The student hears sentences that refer to one of these pictures and he must select among the pictures.

From the beginning, we have felt that students would learn best by being put into a position of having to make plausible guesses. We have not wanted to give them answers beforehand, but rather, we have wanted them to form their own hunches about how the language works. Thus the sequencing of topics is very important. Each lesson must represent a careful increment of difficulty over the earlier lessons. If too much is introduced at a time, the lessons get discouragingly difficult. If too little is introduced, they become tedious. A few of our lessons suffered from either difficulty or tedium, but most

seemed reasonably balanced, and we feel that we have gradually gained a better sense of the most efficient rate of introduction of new materials.

In all the lessons, the student must focus upon the meaning of what he hears. The pictures provide a context and he must work to relate what he hears to what he sees. Although the equipment may seem to provide more or less conventional drill for the students, we believe the type of drill is actually very different from that provided in most language laboratory materials. We give no explicit attention to pronunciation and no drills that require the student to say anything at all or to manipulate or change the language. All he has to do is try to understand. In actual use, pronunciation and syntax both recede to the background of consciousness. Both seem to be accepted as almost natural. It turns out, quite to our surprise, that the student has to concentrate, almost exclusively, upon words -- the meaningful units of the language. We think it significant that naive speakers tend to think of their language as consisting primarily of a set of words. They tend to accept phonology and syntax as "natural". The manner in which our methods focus the attention of the learner on words suggests to us that we are, in some degree, mimicking first language learning strategies.

Through the first term the bulk of the student's work was with our taped lessons. They met as a class for just two hours per week. One of these hours was used as a problem-solving class, in which the students would have a chance to raise questions about the recorded lessons and in which we had the chance to monitor their progress and problems. During the second hour, however, we deliberately offered students an antidote to mechanized lessons. Each week Professor Becker gave the class a short poem, prayer, or other simple literary piece and discussed its

meaning and its place in Malay or Indonesian Culture.

At the beginning of the second term we began to have the class meet four times per week and we began to have the students use language productively. We used a pre-publication version of the textbook Sentence Patterns of Indonesian by Soenjono Dardjowidjojo. Students had few difficulties with pronunciation, and syntax proved quite easy -- a solid sense of both pronunciation and syntax having been acquired in the first term. Students found the very rapid introduction of vocabulary characteristic of this text to be very difficult, however, and this clinched, for us, the conclusion that we must focus more firmly on vocabulary when we turn to revising and expanding our lessons.

4. Results: Examinations and Student Comments, First Year

The first year Indonesian class had only eight members in 1977-78 and we can hardly justify our efforts by their achievements alone. Justification lies instead in what we have learned about the construction of equipment and the design of lessons -- as summarized in previous sections and as given in more detail in the appendices. As stated in our original application for funds, moreover, we never did have great faith in the results of formal tests. The small numbers of students in each Indonesian class, variables introduced by changing teachers and changing text books and, perhaps most important, the experimental situation itself, all conspire to make meaningful and systematic comparison very difficult. Nevertheless, we did give the non-experimental class of 1976-77 and the experimental class of 1977-78 the same examination to see whether differences in achievements could be detected.

The students in the experimental class

did just slightly better on the reading part of the examination (by no means a significant difference) and somewhat more clearly better on the part of the examination that involved listening only. Conceivably the lower number of mistakes on the listening part of the examination was due to the heavier emphasis on listening comprehension this year, but we would not place great trust in the difference.

We would have more faith in the subjective evaluation of Professor Becker than in the results of this test. Becker has been responsible for Indonesian instruction at Michigan for several years and he has acquired a good sense of student achievement. His general impression is that the students this year range over more or less the same spectrum of achievement that students have ranged over in previous years. He feels that, on average, this year's students learned as much Indonesian as their predecessors, but he lacks confidence that they learned more.

In the final examination in the course (not the comprehension exam referred to above), students were required to prepare a short oral presentation for the class. These talks were recorded, and in order to determine the type of mistakes made by the students, the tapes were analysed by an Indonesian linguist, Bambang Kaswanti Purwo.

It turns out that the kinds of production errors the students make are very much the same sort of errors that American students of Indonesian have made in more traditional courses.

It would have been more satisfying if our results had been more decisive. If the class had clearly done less well than earlier classes,

we could admit defeat and return to more traditional methods. If the class had done decisively better, we could advertise our results with more confidence. The results themselves, however, are indecisive. We do continue to feel that, using the experience gained this year, we will be able to improve the lessons considerably, and we do not see how these improvements can do anything but speed up the learning process. Often, this year, we were unable to produce tapes fast enough to satisfy student demand, and equipment breakdown caused some interruptions. With more tapes ready in advance there is no question that students will be able to move much faster.

We also give considerable importance to the comments, both spontaneous and solicited, of the class members. From the start, we were entirely candid with the students. We wanted them to understand what we were doing and why, and we wanted to enlist their cooperation. From the beginning, we looked upon them as colleagues who would help us design our program. The fact that Burling, the principal investigator of this project, studied Indonesian along with the class (in order to try out his own methods on himself) also helped to blur the line between experimenter and subject. We discussed what was going on and we encouraged student suggestions at every point during the year, and in order to be sure we had not misunderstood them or had not missed an opportunity to gain from their experience Burling interviewed each of them at the end of the year.

We summarize their responses here along with our impressions of comments made at other times during the year.

We do not think we exaggerate in saying that the class members were

enthusiastic. They could certainly be annoyed when equipment malfunctioned and they gave us sensible criticism of certain less than ideally designed lessons. But when the equipment functioned properly students enjoyed working with it. They enjoyed the challenge of guessing their way into the language, and several of them were exceedingly grateful for the lack of threat offered by our methods. They could learn in a situation where they had no need to perform in ways for which they were not prepared.

Student strategies in equipment use varied considerably. Some took notes, others did not. Some were silent, others felt the urge to talk back to the machine. We regard the possibility of these varied strategies to be a strong point of our method. We want to design a program that will give maximum flexibility to varied strategies of learning.

Initial worries that students would become frustrated by spending long hours with cold and impersonal mechanical equipment proved groundless. No one found an hour-long session too much, and most said that it took an hour and a half or more before fatigue or tension set in. A session a day posed no problems. We think it fair to say that except when mechanical failures occurred, students found the equipment and the lessons to be fun -- hardly an adjective that is applicable to most first year language drills.

5. Plans After the First Year

Our first year of work on our Indonesian project gave us a sober realisation of just how much work is involved in designing and implementing lessons but we remain enthusiastic about the potentiality of our methods. We firmly believe it can both speed up introductory

language learning and make it more pleasurable.

In the immediate future, we hope to construct a more fully reliable set of equipment that will involve a few less complexities to operate. The ideal equipment for our methods is easy to visualize. A single cassette should include both language frames and their answers, while the program should be built permanently into the equipment. The student should need only insert the cassette, rewind it, and begin. No insoluble technical problems stand in the way of such equipment but we are faced with immediate practical problems. We are using one track of our cassettes for the language samples themselves and a second track for markers that signal the beginnings and ends of frames. Ideally a third track would be used to hold the answers to the adjacent frame. Unfortunately, all of the recording equipment in the laboratory is limited to two track operation, and since we are totally dependent upon that equipment for producing our tapes, we have no easy way to exploit the potentiality of cassettes for a third track. In the immediate future, therefore, we are forced to have our answers introduced separately from the language samples themselves. This year we accomplished this by means of an auxiliary tape recorder and an answer cassette, but, admittedly, the arrangement was clumsy. We hope to build another model in which the answers are introduced by means of a programmable read only memory chip that could be easily plugged in. The student would then simply insert the cassette and the answer chip and he would be ready to go. This would certainly be an improvement over our present equipment but it will not yet be ideal. Until the answers are put on the tape beside the frame with the language sample, the possibility will remain for getting the language samples and answers out of sync, a terribly

frustrating situation for the student.

Along with better equipment we want to refine and expand our lesson material. In particular, we would like the opportunity to rearrange our present lessons somewhat and to add new lessons that concentrate more specifically on vocabulary so that vocabulary can be built up more rapidly than this year. In the course of the year we have become aware of just how crucial vocabulary is. A meagre vocabulary makes comprehension difficult and once students start to talk it limits their ability to express themselves on a range of topics. We feel we were justified in our hope that pronunciation would, more or less, take care of itself, and we see no need to focus attention on pronunciation. But vocabulary was a more severe problem, and it is upon vocabulary that we will place our greatest efforts as we modify our lessons in the future.

We want to take two other practical steps before starting next year's class. First, we intend to write brief summaries of the materials of each lesson and give these summaries to the students. We did not do this this year, because we did not want to undermine our inductive approach or to give students the chance to rely on being told the answers. We wanted to be sure that they would have to try to guess their way into an understanding. This year's students felt that summaries might be a desirable way of letting them check their progress, however, and they felt that they would have been able to resist the temptation of looking at the answers too soon. We now feel that lesson summaries would be one way to help students consolidate what they have learned and avoid getting into traps.

Second, we must work out a smoother transition to language production. The transition this year came abruptly at the beginning of

the second term when students were suddenly asked to cope with the rather elaborate vocabulary of Darjowidjojo's text book. The method of transition that we are now favoring, would be to return to the pictures we have already used for the comprehension lessons and use them a second time as stimuli for speech. With a delay of some months, students would return to the pictures that they had used earlier and try to exchange sentences using the now familiar and well-learned constructions and vocabulary that they had learned to understand with that picture earlier. They would be using a simpler form of the language than they were understanding by then, but this would offer some review of the materials and also offer a gradual build-up of productive ability following, with a suitable delay, the earlier build-up of receptive ability.

For the somewhat more distant future we have ideas about reading materials that would complement our spoken materials. One student complaint about our methods this year was the lack of anything to take home. They had nothing to practice on in odd corners of the day. We tried to find reading materials, of an elementary sort, but fully satisfactory materials have eluded us. Reading materials that are closely keyed to the taped lessons might help the student considerably. Reading and aural comprehension are both receptive processes and we suspect that for literate adult learners, reading would be a valuable complement to aural comprehension. It might allow for a more rapid and efficient introduction of new vocabulary, and it would give the student something to take home. We will not have such materials unless we construct them ourselves, but this is for the future.

In the meantime, we are already far enough along so that we can

demonstrate our methods and materials to our colleagues and to visitors. Before long, we hope to get some of them interested in trying our methods with other languages.

6. Second Year Report (by A.L. Becker, Co-Principal Investigator)

The past few years have been for those of us involved in teaching and learning Bahasa Indonesia here at Michigan a time of getting used to what we call the Burling Machine. Quite honestly, many of us who have been excited by Burling's other ideas (such as his approach to learning French via an interlanguage which very slowly changed from mostly English to all French) were skeptical of the machine. I myself had supervised a group learning Thai with a machine many years ago: after they had spent a semester on the machine, I brought them into class, and found I had to start Thai all over again--they had learned next to nothing. That and other disappointing experiences with instructional machinery--here and in Indonesia, plus a humanist's healthy disdain for the reduction of wholistic skills to programmed sequences of atomistic experience, plus a certain amount of intellectual inertia, underlay our skepticism. I state this rather personally, but I do believe a good many language teachers, particularly those who like to teach languages, think at least somewhat that way. Teaching machines were thought of in the past essentially as control devices--error-less didacts teaching teacher-proof programs. It is interesting that this view of a teaching machine was based on a philosophy of language learning which, in turn, was based on a philosophy of language--all of which are no longer quite so enthralling to language teachers and linguists. It might be of interest to try to connect what we have come to see as the various

successes of the Burling Machine with what seem to be the insights into language learning--and the phenomenon of language itself--associated with them.

The way the machine works was described in detail in Appendix Two. Essentially it is a mode of allowing a student to choose among twelve to fifteen responses to a situation, have his response evaluated, and then either proceed or go back over it again. It is used with voice and pictures and proceeds by frames. We are now beginning to use Burling III, an improved version of the machine: the main imporvement which is noticeable to the learner is that he no longer has to load the answers into the machine--via a complex sequence of long number codes--but can start right in; the answers are now permanently "burned" into the r.o.m. (read-only-memory).

The micro-computer seems to allow just enough complexity of response to turn control (the straightjacket of a simple device) into a game. Many students react to the Burling machine as a kind of electronic pinball. It is a game to finish a lesson, and not get set back too many times.

There is a continuum of learning strategies ranging from being told something (a rule) and then drilled and tested on it, on the one hand, to being presented with a mystery (a text) and then guessing solutions and then checking them (interpretation), on the other. The Burling machine's "games" are the latter type. The other teaching machines I have experiences have been the former. We can compare these two strategies, rule and example versus text and interpretation, with prevailing linguistic methodologies, structuralist (including generative) methodologies and more wholistic, discourse centered methodologies. In a typical structuralist article, the author presents

a rule and then provides examples, while in a discourse centered study, he presents a text (oral or written) and describes it. These are very different approaches, and to the extent that language pedagogy is based on linguistic models (and, so far anyway, the dependence has been very great), certain modes of learning seem quite "natural" to the language teacher-linguist. Structuralists tend to believe, for instance, that rules are somehow inherent in language (which is "rule governed"), and to learn is to recognize them and then drill them until they become backgrounded into habits. Many today doubt the whole thing, with an argument that goes somewhat as follows: it is a danger to confuse meta-language (rules) with language; that is, it is a danger because it confuses language <u>about</u> something with that something, and language about things is not necessarily more stable, absolute, and universal than any other kind of language. English meta-language (rules) about Bahasa Indonesia may provide a useful bridge from English to Indonesian, but it is not inherent in Bahasa Indonesia; it is an English speaker's view of Bahasa Indonesia, and, in contrast to its potential interest to linguists, may impose an unnecessary, additional layer of learning. Why not, rather, learn particular, in-context, discourse (words and sentences, but primarily sentence clusters) and then learn how to <u>shape</u> that bit of discourse to new settings.

The first stage in that process can, we find, be passive--and perhaps it is <u>best</u> learned passively, by observing people (in pictures) change their language in different contexts, and learning to match the language and the contexts. Would it be better to provide a rule (stated with as much context freedom as possible) to describe the linguistic changes? Would that be an aid to learning? That the

obvious answer to both those questions is yes is what, I believe, our experience with Burling's machine and his methods challenge. Perhaps the process of seeing regularity emerge is an essential part of learning something like a language. One might explain it this way: to understand a language is to project yourself into it, to be within it, the way a blind man's cane is an extension of himself, not a material object between him and the world. To reduce the experience of being within anything to a sequence of rules is well-nigh impossible, as every researcher in Artificial Intelligence has discovered, when he tried to get an expert to systematize his act of expertise, internal or external. Being-in a language is a very different experience than knowing about it, and it may well be that an <u>experience</u> of emergent pattern (not being told it) is a way we learn to be-in anything. It is interesting to notice that the sense of emergent pattern is often identified with <u>aesthetic</u> experience. I suspect that the neglected dimension in all learning devices to now has been the aesthetic dimension. The Burling method, in contrast, is built around an essentially aesthetic experience, an experience of emergent order. Such an experience can generate a motivation in the learner which is very different from the experience of being controlled, by either fear or reward. I suspect that this may be the greatest virtue of the Burling method.

For one thing, as we mentioned in our prior report, it changes the learner's attitude toward errors. We mentioned then the student who said she hadn't learned anything one day because she got all her responses right. To bring a language learner to welcome error as good news is to overcome what must be the biggest obstacle to language learning: fear. Again, if I must project myself into something like

a language, to hold back out of fear insures defeat. Furthermore, to learn how to shape discourse to context is to learn constraints--i.e., more about what one can't or shouldn't do than about what one can do. The latter seems far more open-ended than the former.

The Burling machine, to summarize a bit, opens up a methodology which has certain very interesting features:

(1) It emphasizes text and interpretation (i.e., relation to context) rather than rule and example.

(2) It emphasizes the experience of emergent order rather than the experience of being controlled.

(3) It emphasizes the positive, heuristic value of errors rather than the negative, "contaminating" dis-values.

The Burling machine and methodology also open interesting possibilities, a few of which were explored under the grant I am reporting on, and others of which we are only now beginning to see. One of the most interesting possibilities is to have a library of various kinds of discourse, written and oral, available to advanced students for self-instructions. For those of us teaching an entire language program with inadequate staff (usually a faculty member and assistants) advanced learners present a big problem: their skills, needs, and interests are widely divergent. Some want to read poetry, others want to interview economists. What we forsee, and have begun, is a library of machine aided lessons, available on demand, covering as great a range of language activities as possible. Under this grant we developed the prototypes of advanced lessons of this sort.

Jeffrey Dreyfuss chose as his text a recorded comic routine from East Javanese theatre. In it a government official visits a small village and tries to involve the village head in a family planning project. What evolves is a very funny set of misunderstandings, and--

for students--some real insights into village life--in the idiom of the village. There are six lessons based on this material, arranged in a format rather different from that used in the first year. This format, like the introductory one, was developed by trial and error--i.e., watching students go through prototypes. The new format has the following stages:

1) Introductory remarks: context and characters.

2) A whole section of a comic routine is played.

3) True/false questions about the whole are presented

4) The section is broken to parts:
   a. part one is played.
   b. special words and idioms are explained.
   c. comperhension exercises on local words and idioms.
   d. a model sentence (often complex) is introduced, with examples.
   e. questions about part one using the model sentence.
   f. part two is played, etc.

5) The routine is replayed in its entirety.

These six lessons, which are included as appendix 1, fit well at the end of the second semester of the intermediate year, or at the beginning of the advanced year.

Suzanne Sutro took as her text a recorded story, told by an Indonesian teacher to a group of other teachers, about an exciting, very frightening incident from his experience. (The story is one of five such oral experiences I recorded for the project in Indonesia in the fall of 1978.) The lessons Sutro built around the text are included in appendix II. They are aimed at a more advanced learner than Dreyfuss' lessons.

This summer, we are working on lessons built around: a poetry reading by a famous poet, a lecture at the University of Indonesia on the Ramayana by a well-known teacher, and several other texts. It is

slow work, but we are getting better at it, and we hope, someday, to have a sizable library, limited only by our own time and imagination.

Under the grant we also developed a series of supplementary beginning lessons, based on John Wolff's Beginning Indonesian. We did this somewhat reluctantly, since Wolff's methods are quite different from ours and combining his methods with ours certainly makes evaluation of our work very difficult. However, for two reasons we decided to develop these supplementary lessons:

1) Students seemed to need written materials for home study and to make them confident they were really learning, since they had always had textbooks for languages. After trying out Soenjono Dardjowidjono's Sentence Patterns of Indonesian for a year, we returned to Wolff's book, primarily because it was a lot less "dry" than Soenjono's book.

2) We wanted to increase the vocabulary of the students, and the Wolff book provided a large body of well-considered, everyday vocabulary.

Winifred Anthonio and Frances Hayes wrote supplementary lessons for the first 10 chapters of Wolff, using the format of our own original lessons, which the students used as before. Seven of these supplementary lessons are included in appendix III.

It is our feeling that, in part because of the supplementary lessons, students now feel less experimented-with and much more confident of their own progress, as they see how easily they move through the Wolff materials.

These supplementary lessons give us an additional benefit. We frequently have requests from faculty or students going to Indonesia for special instruction to give them enough Indonesian to help them get along in public places and to provide a foundation for further study. Now we can send them to the laboratory and they can spend as

much time there as they feel they need, while studying at home and in Indonesia with Wolff's materials. Likewise, students who enter the program in mid-year can now begin with minimal supervision on the machine and even, with intensive effort, catch up to the class. The machine thus supplies a new flexibility to our program.

We might add that the whole introductory program is running much smoother in the second and thrid experimental year than it did in the first year. We have all gained in confidence that the system does work. This has given us time and encouragement to move on to new kinds of lessons and further experimentation.

APPENDIX 1

THEORETICAL BACKGROUND

A number of language researchers have suggested that aural comprehension should have priority in the language learning process (Asher, 1965, 1969; Scherer, 1948, 1952; Winitz and Reeds, 1973; and particularly Postovsky, 1970, 1974, 1975), but the dominant view among language teachers, in the past three decades at least, has been that students can be expected to produce pretty much anything that they can understand. See, for instance, such standard works as Chastain, 1976. We explain in the next few pages our reasons for emphasizing aural comprehension.

Even the most casual observer of children who are learning their first language quickly becomes persuaded that, at any stage in their development, children understand far more than they can produce. (For less casual observations see Fraser, Bellugi, and Brown, 1963.) Less clear evidence also suggests that adults who are thrown into a foreign language, rather than given formal instruction, also learn comprehension before production, although there may be great individual variation in adult strategies for language learning. Deaf mutes have great difficulty learning language but an individual with defective articulatory apparatus and who cannot say a single word, may still learn to understand normal language with no apparent problem, so long as he is normal in brain and ear. (Lenneberg, 1962.) Understanding, in other words, is possible without speaking, but speaking is quite impossible without understanding.

It is, indeed, a general characteristic of language skills that everyone understands more than he can produce. All of us can understand words and all of us can understand dialects that we cannot use actively. In almost all formal instruction, however, it is taken for granted that production must go hand in hand with reception. Why should this be such a pervasive assumption?

First, there is the simple weight of tradition. People rarely even stop to ask whether or not production should be taught. It has always been taught, or so it seems, and so it continues to be taught. Second, production is easier to test than reception. One need listen to a student only briefly to get a good idea of his productive skills. Testing understanding is a slightly more subtle problem. Ease of testing, however, is surely a totally illegitimate reason for deciding what to teach. And, in any case, we believe that there is a third and more important factor that has encouraged the emphasis upon production: a set of vaguely behaviorist notions that look upon language solely as a kind of behavior and not also as a kind of knowledge.

A good deal of the linguistics of an earlier era was dependent upon a rather simplistic behaviorist model. Language was seen as one kind of behavior, and behavior, it was supposed, had to be learned by some rather simple mechanism that involved stimuli, responses, and rewards. More recent linguistics has rebelled against this earlier simple behaviorism but it has continued, implicitly, to see language as an active, productive process. In spite of the often repeated claims of the transformational and generative linguists that their theory is "neutral as between speaker and hearer" it is difficult not to interpret much of what these linguists do (as opposed to what they say they do) as

emphasizing the role of the speaker. Linguists have asked how sentences are formed, put together, constructed, generated. Much less often in recent years have they asked how they are taken apart, decomposed, understood.

The generative and transformational linguists have, however, helped us to see the vast complexities of language. Behind the surface features of a sentence lie layer upon layer of underlying structure. One cannot speak without controlling these layers. One cannot even imitate successfully without knowing this structure. My repetition of an English sentence is only made possible by my prior knowledge of English phonology, the intricacies of English syntax and English vocabulary. I do not hear a sentence in terms of all the detailed surface noises that impinge directly upon my ear, but in terms of its words and in terms of very abstract syntactical patterns. I use all of this knowledge in any repetition that I make, just as I use it when producing an entirely new sentence. The ability to imitate, therefore, is the result of having learned a language. It is not the means by which a language is learned. A beginning student who is asked to produce a foreign sentence must grope for phonological, syntactic, and lexical skills that he has not yet assimilated. He is forced to call upon the only skills that he has, those of his native language. The result is massive interference from that language.

Recently, a few language teachers have been experimenting with methods that emphasize aural comprehension. The most extensive experiments that we know of are those of Valerian Postovsky of the Defense Language Institute at Monterey, California. In his Berkeley dissertation and elsewhere (Postovsky, 1970, 1974, 1975) he describes

some highly successful (and unusually well controlled) experiments in teaching aural comprehension of Russian at the Defense Language Institute. His methods have proved to be highly successful. His experience and our expectation is that once students have gained some ability in aural comprehension, production will follow with relatively little difficulty. Once they have acquired sufficient receptive control students should be able to monitor their own speech and they should have the knowledge that will enable them to process their language at the many simultaneous levels required in production.

We can put the matter in simpler, possibly more naive, terms. Let us sympathize with the student who is asked to produce language from the beginning of his studies. He must try to make peculiar, even embarrassing noises. He cannot fathom any good reason why some sequences of words are allowed while others are forbidden. He will be bedevilled with the messy and senseless irregularities that occupy the heart of most languages. He cannot possibly avoid making mistakes. In the typical classroom he will even be subjected to the mistakes of his classmates and these will reinforce his own errors. He will continually be frustrated by his slow progress and by his inability to converse on topics of interest or to find the word that he needs to convey his ideas. He will have to expend great conscious effort on the structure of the language -- to think about its sounds and its grammar -- and this diverts his efforts from the area that is always most important to the fluent speaker -- the meaning.

The receptive learner can avoid many of these problems. He need not be embarrassed by his own mistakes and he need not be subjected to the mistakes of his classmates. He wastes far less energy worrying

about messy irregularities. Not having to recall words or constructions for active use, he can make much more rapid and satisfying progress. When he finally begins to talk he will do so on the foundation of an extensive knowledge of the language. He will know words, constructions, and even sounds, and he will be able to use them in a far more intuitive way than a student who must talk from the start. His conscious attention should approximate that of a native speaker. He will be able to avoid using certain forms because he will feel that "they do not sound right" and he will have less need for abstract rules that tell him that some sequences violate some abstract rules of grammar.

Our ultimate goal, of course, is to give students a full use of all aspects of the language, active as well as passive. A passive knowledge alone may not be quite useless, but it is hardly enough. We believe that the shortest route to the final goal of a fully rounded set of linguistic skills is to emphasize passive knowledge at the beginning. We expect that a good deal of active ability will take care of itself with time.

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4. Geographic Location

The project will be located in Ann Arbor, Michigan. (Applicants for 13, 436 are not required to respond to "4".

APPENDIX 2

MACHINE DESIGN

Currently our system is composed of four major parts: a computer, a language machine, a data machine, and the software to drive the system. It is convenient to divide these into two major categories: The Equipment and the Software.

The equipment: The KIM I computer is a complete computer system on a single printed circuit board. It consists of the 6502 8 bit CPU, two 6530 ROMS, 1024 8 bit words of RAM memory, an audio cassette interface, a TTY interface, a six digit seven segment LED display, and a hexadecimal keyboard. Each 6330 contains an additional 64 8 bit words of RAM memory, a portion of the KIM monitor routine in ROM, two I/O ports, and one interval timer. In our system the KIM computer is used to store a table of correct answers to lesson material, to input and interpret student responses, to control the language machine, and to signal to the students via the LED display the correctness of their answers.

The language machine is an extremely versatile cassette tape drive. It is capable of being remotely controlled in all modes including fast forward, rewind, variable speed bidirectional play, bidirectional high speed search with head engaged, and stop. Its function is to play back, in a variable sequence under computer control, frames of lesson material prerecorded on one track of a standard Phillips cassette. The second track is used as a control track with tone bursts indicating frame boundaries (Figure I).

FORMAT FOR AUDIO
AND CONTROL TRACKS
ON PHILLIPS CASSETTE

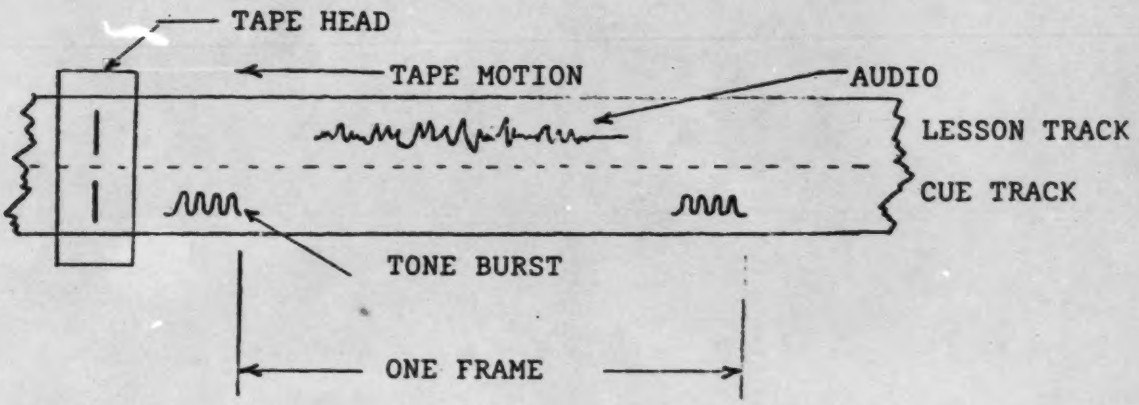


FIG 1

The data machine is a good quality consumer type cassette recorder. We use this to record on audio cassette the digital data of our system program and answer tables for permanent storage. For reuse at a later time, the system program and tables are simply played to the computer on the data machine.

All, with the exception of the data machine, is packaged in a 20" x 12" x 4-1/2" box with the key board, display, language machine cassette well, and manual language machine controls accessible to the user on the front panel (Figure 2).

The software: The KIM I is a real, but miniature, general purpose computer. As such, it requires a program to do anything at all, even for example, in put user programs. This and other of the most basic operating requirements are met by the KIM I monitor routines stored in non-volatile ROM in the 6530 IC's. These routines enable the user to enter information from the keypad into RAM memory, display information on the six digit LRD display, start the execution of a user program, and store programs or data on an audio cassette tape and to reenter such data from tape at a later date.

Our program, the Burling Tutorial Routine, must do several jobs at near real time. It must scan and update the display, scan the keyboard for student input, check the status of the language machine and issue any required control signals, and interpret student input to be true or false.

From the students' point of view (Figure 3), the computer contains the Burling Routine and a table of correct answers to the lesson. When the "+" key is pressed the computer starts the language machine and plays one frame while scanning for student input. If the student input

GENERAL LAYOUT AND
SIGNAL FLOW

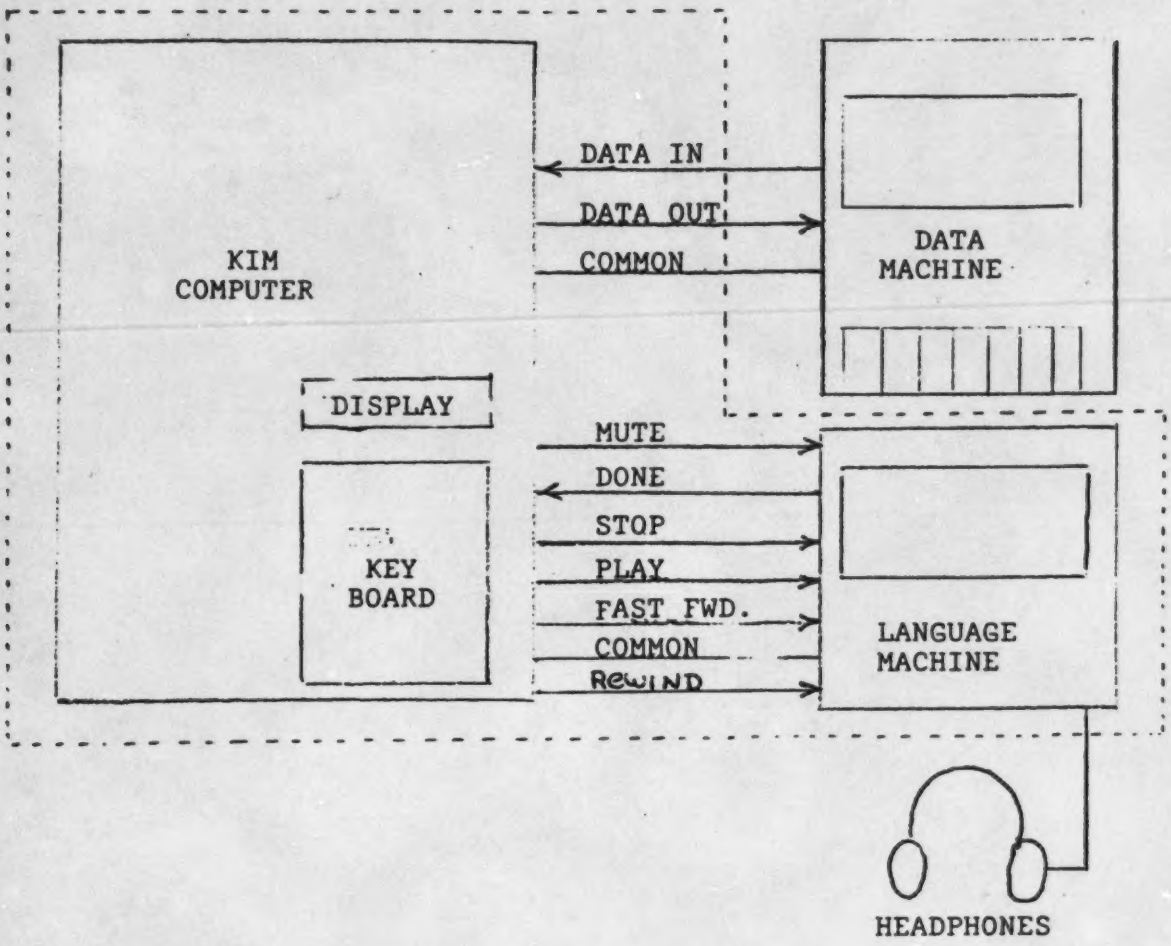
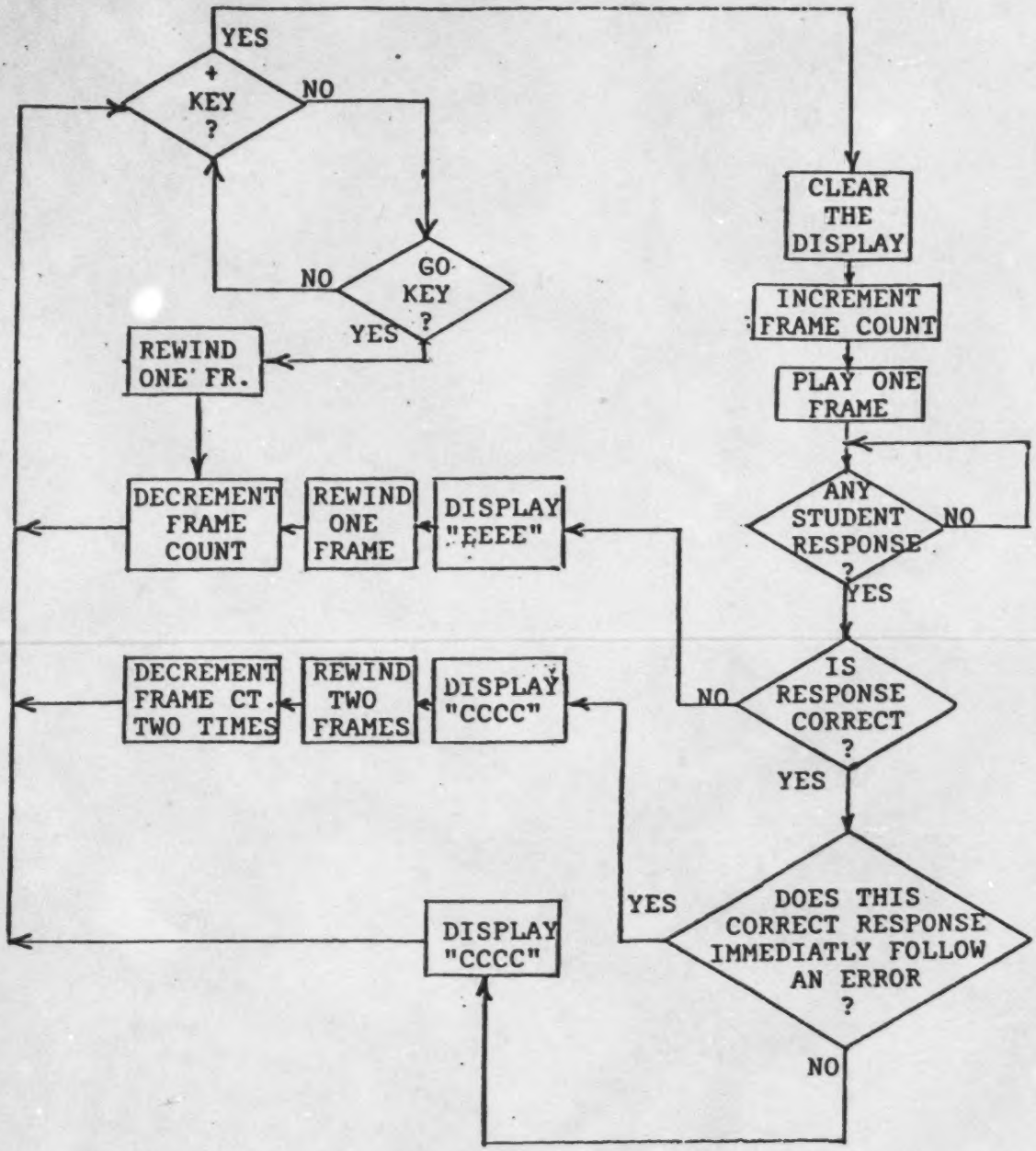


FIG 2



BURLING ROUTINE FIG 3

is true, according to the answer table loaded in the memory, the computer writes "CCCC" to the display and waits for the "+" key before playing the next frame. If the student input is false, the computer writes "EEEE" to the display and starts the language machine to rewind one frame. Then when the "+" key is pushed again, the frame on which the error was made will be repeated. Should the next student input be true, the computer rewinds the language machine two frames and writes "CCCC" to the display. This places the student on the frame prior to the one on which the answer was false. It can be seen that should true and false answers be alternated, the student will "progress" backwards on the tape. If they are all false he will stay on the same frame and if they are all or mostly true he will move forward. The "go" key gives the student the option of rehearing a frame without any penalty.

Conclusion: Technically, our experience has been both enlightening and encouraging. We have learned, for example, that it is both tedious and error prone to hand assemble and "toggle in" programs and answer tables byte by byte. Sometime in the future, therefore, it would be useful to separate the programming from the student machine and do it on another machine with enough memory to handle an assembler.

Next, we learned that the power supply we designed was not entirely adequate in that noise on the power line "got through" and was sensed by the computer as input from the language machine. This not insurmountable problem was nevertheless quite frustrating and confusing for students.

Finally, we were encouraged by the versatility and dependability of the equipment we purchased. These factors enabled us to apply this equipment to our own special needs with little or no modification and have it function quite reliably.

APPENDIX 3

SUMMARY OF LESSONS

The following pages give a brief summary of the material covered in each part of each lesson.

INDONESIAN LESSONS - FALL SEMESTER, 1977

Lesson 1. Material: First person pronoun (saya), this (ini), that (itu), names Mr. Sulaiman (Pak Sulaiman), Tati, Bambang.

Presention: Sentences to be identified with pictures 1-9.

Lesson 1a. Material: same as lesson 1.

Presentation: Sentences to be judged true or false, of same nine pictures in different order.

Lesson 2. Material: Nouns: school (sekolah), house (rumah), coconut tree (pohon kelapa), banana tree (pohon pisang), coconut (kelapa), banana (pisang), plus names from lesson 1.

Presentation: words to be identified with numbered items in large picture.

Lesson 3. Material: Locative: at (di) plus locations from lessons 1 and 2; question: where is X? (Di mana X?) plus names from lesson 1.

Presentation: Sentences to be identified with pictures 1-9.

Lesson 4. Material: Questions and answers: is that/this an X? (apa itu/ini X?) Yes/no (ya/bukan), plus terms of address from names of lesson 1 (Pak, Tiek, Bang) and nouns from lesson 2.

Presentation: Sentences to be identified with pictures 1-9.

Lesson 5. Material: Questions and answers: is X there? (apa X ada di situ?) yes/no (ya, tidak ada), plus locations from lesson 3 and names from lesson 1.

Presentation: Sentences to be identified with pictures 1-9.

Supplementary 1
to lessons 3,4, & 5. Material: Questions and answers: is this an X? (apa ini X?), Yes/no (ya/bukan), is there an X there? (apa ada X disitu?), yes/ no (ya/ tidak), plus terms of address from lesson 3.

Presentation: Sentences to be identified with pictures 1-9.

Supplementary 2
to lesson 3,4, & 5. Material: Sentences using material from lessons 3,4,5.

Presentation: Sentences to be judged true or false, of pictures 1-9.

Lesson 6. Material: Questions and answers: who is that? (siapa itu?), thisis Totok/Tini, sir, my younger brother/sister (ini Totok/Tini, pak, adik saya). Interrogative: who (siapa), possesive: my X (X saya), Vocabulary: younger sibling (adik), book (buku), names (Totok, Tini).

Presentation: Sentences to be identified with pictures 1-9.

INDONESIAN LESSONS - FALL SEMESTER, 1977

Lesson 6a. Material: Questions and answers, possesives: Whose house is that? (itu rumah siapa?), that's Pak Sulaiman's house (itu rumah Pak Sulaiman), who is at the school? (siapa ada di sekolah?), etc., Vocabulary: and (dan), plus previous vocab.

Presentation: Sentences to be identified with pictures 1-9.

Lesson 7. Material: Review of lessons 1 - 6..

Presentation: Using figures 1 - 6, sentences are to be judged true or false for each picture in the figure. Also, sentences differing slightly from the originals are to be matched with pictures 1-9 in some cases.

Lesson 8. Material: Use of existential (ada) with indefinate and definate noun phrases: There is a book on the table (ada buku di meja), Tati is in the house (Tati ada di rumah). Vocabulary : table (meja), road (jalan), car (mobil), bus (bis).

Presentation: Sentences to be identified with pictures 1-7.

Lesson 8a. Material: Same as for lesson 8.

Presentation: Sentences are to be judged true or false, of Figure 8a.

Lesson 8b. Material: Existential, possesives, negatives, questions (both yes-no and content): There is/is not a banana tree at my house (ada/ tidak ada pohon pisang di rumah saya), is there a banana tree at Tati's house? (apa ada pohon pisang di rumah Tati?), where is there a coconut? (di mana ada kelapa?), etc.

Presentation: Sentences to be identified with pictures 1-6; possibility of more than one sentence per picture.

Lesson 8c. Material: Same as for Lesson 8 b. Vocabulary: chili sauce (sambal), room (kamar), chair (kursi), plus name (Bu Sri).

Presentation: A question is asked and one of three possible answers is to be chosen, for each of 16 pictures.

Lesson 9. Material: Noun phrase plus verb of motion: Tati runs (Tati lari), Bambang and Tati sit (Bambang dan Tati duduk), Pak Sulaiman isn't sitting in a chair (Pak Sulaiman tidak duduk di kursi), etc., plus locative: to (ke).

Presentation: Sentences to be identified with pictures 1-9.

Lesson 10. Material: Tense auxilliaries: will, want (mau) , has, already (sudah); additional verb: eat (makan); Pak Sulaiman wants to eat a banana (Pak Sulaiman mau makan pisang), Pak Sulaiman has eaten a banana (Pak Sulaiman sudah makan pisang), etc.

INDONESIAN LESSONS - FALL SEMESTER, 1977

Lesson 10 (cont.)
Presentation: Sentences to be identified with pictures 1-9.

Lesson 10a. Material: Same as lesson 10, plus yes-no and content questions.

Presentation: Questions to be answered yes or no, according to figure 10a; questions and answers to be judged appropriate or not, according to the same figure.

Lesson 10b. Material: Same as lesson 10a.

Presentation: Sentences to be judged appropriate or not, according to figure 10b.

Lesson 11. Material: Third person pronoun (dia): Tati is going to school. She is running. (Tati ke sekolah. Dia lari.) Name: Mrs. Sulaiman (Ibu Sulaiman). The third person pronoun is not to be used for a) persons to whom respect is being shown, b) inanimate objects. This is demonstrated in this lesson.

Presentation: Sentences to be identified with pictures 1-9.

Lesson 11a. Material: Same as lesson 11.

Presentation: Questions to be answered or sentences to be completed, with one or more of three possible choices, according to nine pictures in figure 11a.

Lesson 11b. Material: Same as lesson 11.

Presentation: Statements are made about figure 11b, followed by yes-no questions to be answered.

Lesson 12. Material: Vocabulary: Table (meja), plate (piring), spoon (sendok), fork (garpu), cooked rice (nasi), tea (teh), chili sauce (sambal), fish (ikan), egg (telur). In part two, a restaurant conversation between a man and a waiter, using the vocabulary, plus thank you (terima kasih).

Presentation: Words to be identified with numbered items in figure 12 (showing a man, waiter, food on table). Then a short conversation, then yes-no questions about the conversation and the picture to be answered.

Lesson 12a. Material: Use of the vocabulary in sentence patterns from previous lessons.

Presentation: Sentences to be identified with pictures 1-6.

Lesson 13. Material: Possesive: I have a cat (saya ada kucing); locatives: on (di atas), under (di bawah), from (dari) to (ke); On top of the table there is fish and rice; there is a cat under the table. (Di atas meja ada nasi dan ikan; ada kucing di bawah meja.)

Presentation: Sentences to be identified with pictures 1-7, more than one sentence per picture in some cases.

INDONESIAN LESSONS - FALL SEMESTER, 1977

Lesson 13a. Material: Same as lesson 13.

Presentation: Sentences to be judged true or false, according to Figure 13a.

Lesson 13b, Material: same as for lesson 13.
Presentation: same as for lesson 13a, with reference to Figure 13b.

Lesson 14. Material: Review of lessons 8 - 13.

Presentation: Sentences to be identified with pictures, also sentences to be judged true or false relative to pictures.

Lesson 14 a. Material: same as for Lesson 14.

Presentation: Sentences to be judged true or false relative to Figure 14a.

Lesson 14b. Material: Same as for lesson 14.
Presentation: A short listening passage, illustrated by Figure 14b, about which multiple choice questions are to be answered.

Lesson 15. Material: Numbers plus classifiers: one person, thing, animal (seorang, sebuah, seekor), two, three, four, five, ten (dua, tiga, empat, lima, sepuluh) people, things, animals, with vocabulary from previous lessons.

Presentation: Sentences to be identified with pictures 1-9.

Lesson 15a. Material: Same as for lesson 15, plus vocabulary for twenty (dua puluh), child (anak), and Indonesian monetary unit (rupiah).

Presentation: Sentences to be identified with pictures 1-9.

Lesson 15b. Material: Same as for lesson 15a, plus vocabulary for bird (burung), and locatives from previous lessons.

Presentation: Sentences to be judged true or false of Figure 15b.

Lesson 16. Material: Transitive verbs: buy (beli), sell (jual); Vocabulary: papaya (papaya), chili peppers (lombok), and names (Pak Mat, Bu Minah, Bu Sri), also market (pasar). This is combined with the numbers and classifiers of lesson 15, plus the classifier for bunch of bananas (sisir).
Presentation: Sentences to be identified with pictures 1-9.

Lesson 16a. Material: Same as for lesson 16: e.g. Bambang has bought four bunches of bananas (Bambang sudah beli empat sisir pisang).

Presentation: Sentences are to be judged true or false, with reference to Figure 16a.

INDONESIAN LESSONS - FALL SEMESTER, 1977

Lesson 17. Material: Numbers: Tens (puluh) and hundreds (ratus) in combination with numbers 1 - 5, with rupiah.

Presentation: Sentences to be identified with pictures 1-9.

Lesson 17a. Material: More use of numbers in buying and selling, e.g. ten chilis cost twenty-five rupiah (sepuluh lombok, harga-nya dua puluh lima rupiah), etc. Vocabulary: price (harga), third person possesive/ definitizer (-nya), give (beri), receive (terima), dative preposition'to'(kepada), pay (bayar), return (kembali, kembalikan), money (uang), how much? (berapa?).

Presentation: Sentences to be identified with pictures 1-9, more than one sentence per picture. The sentences are in the form of conversations dealing with bargaining.

Lesson 17b. Material: Same as for lessons 17 and 17a.

Presentation: Multiple chioce questions to be answered with reference to Figure 17b.

Lesson 18. Material: near (dekat) and far (jauh), combined with vocabulary from previous lessons: Tati's house is far from the market (Rumah Tati jauh dari pasar).

Presentation: A short listening passage introduces the concepts, then sentences are identified with reference to numbers on a map. Then multiple choice questions are asked, with reference to the same map.

Lesson 18, part 2.

Material: Closer to (lebih dekat dengan/ke), farther from (lebih jauh dari), thus introducing the comparative. Also, Tati's house is farther from the market than from the school (rumah Tati lebih jauh dari pasar daripada dari sekolah), etc.

Presentation: Sentences are to be identified with numbers on the same map (Figure 18). Then sentences are to be judged true or false with reference to the same map.

Lesson 18a. Material: Combination of material in lesson 18 with numbers and bargaining; also introduction of left (kiri) and right (kanan). Vocabulary: go by foot (jalan kaki), thus (jadi), because (karena), pedicab (becak), pedicab driver (tukang becak), call (memanggil), come (mari), turn (belok), don't (jangan), like that (begitu), excuse me (ma'af), arrive(sampai). The verbal prefix meN- is also introduced.

Presentation: A listening passage is given, in which a story is told with refernce to 7 pictures in Figure 18a. Then portions of the story are to be individually identified with pictures 1 - 7. Finally, questions are to be answered yes or no, with reference to the same pictures.

INDONESIAN LESSONS - FALL SEMESTER, 1977

Lesson 19. Material: Numbers : six (enam), seven (tujuh), eight (delapan), nine (sembilan), and many (banyak), combined material on right and left. Also, large (besar) and small (kecil) combined with comparatives. Vocabulary: the above, plus hand (tangan), and the relativizer yang. The book which is in my right hand is bigger than the book which is in my left hand (buku yang di tangan kanan saya lebih besar daripada buku yang di tangan kiri saya).

Presentation: Sentences to be identified with pictures 1-9.

Lesson 19a, Material: Numbers: thousand (ribu) combined with numbers from previous lessons, and comparative with expensive (mahal), inexpensive (murah). Vocabulary: shirt (baju). This shirt is more expensive than that shirt (baju ini lebih mahal daripada baju itu), this shirt costs Rp7,580 (baju ini, harganya tujuh ribu lima ratus delapan puluh rupiah).

Presentation: Sentences to be identified with pictures 1-9.

Lesson 19a, part 2.
Material: Same as lesson 19, 19a, plus vocabulary: all right (boleh), lessen (kurangi), book shop (toko buku).

Presentation: A listening passage is presented, involving someone buying books and bargaining for a lower price. Then multipàe chioce questions are asked about the story.

Lesson 19b,c,d.
Material: Large number practice, plus additional vocabulary: pants (celana). Numbers are also given in the form of years: 1979 (seribu sembilan ratus tujuh puluh sembilan), etc.

Presentation: Sentences and numbers to be identified with pictures in Figures 19b, 19c, 19d.

Lesson 20. Material: Reading and learning words in context. Vocabulary: means in English (berarti dalam Bahasa Inggeris), they (mereka), just now (baru), enter (masuk), begin (mulai), cake (kue), drink(minum), sentence (kalimat), ask (bertanya), know (tahu), answer (jawab), say (berkata), may (boleh), anything (apa-apa), snack (makanan kecil), own (punya).

Presentation: A reading passage is given, new words are introduced, and questions are to be answered with reference to the numbered sentences of the reading passage.

Lesson 20a. Material: Same as for lesson 20.

Presentation: The same questions used in lesson 20 are read again, without explanations of the vocabulary; the sentence from the reading passage (lesson 20) which answers the question is to be identified, then followed with a reading of that passage. Additional questions are asked, to be answered yes or no.

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Lesson 21. Material: Review of lessons 15 - 20.

Presentation: Two listening passages are given, with multiple choice, fill-in-the-blank, and true false questions to be answered with reference to them.

Lesson 22. Material: Derivational affixes: bring something near or put something far (mendekatkan or menjauhkan), get near to or far from (mendekati or menjauhi); Banbang puts the chair close to the table (Banbang mendekatkan kursi ke meja makan).

Presentation: Sentences to be identified with pictures 1-9.

Lesson 22a. Material: Same as for lesson 22.

Presentation: One of two sentences to be chosen as correctly describing the pictures in Figure 22a.

Lesson 23. Material: Colors: red (merah), white (putih), black (hitam), green (hijau), plus additional vocabulary: flower (bunga), flag (bendera), leaf (daun), color (warna).

Presentation: Sentences to be identified with pictures 1-9.

Lesson 23a. Material: Same as for lesson 23.

Presentation: Questions to be answered yes or no, with reference to Figure 23a.

Lesson 23b. Material: Same as for lesson 23; emphasis on placement of -nya, and on difference between distributive and non-distributive adjectival usage: black cats and white cats (kucing yang hitam dan yang putih) vs. black and white cat (kucing yang hitam putih).

Presentation: One of two sentences to be chosen with reference to a preceding statement.

Lesson 24. Material: Reading comprehension, introduction of object-focus verb prefix (di-). Vocabulary: harvest (panen), island (pulau), picture (gambar), presently (sedang), cut (memotong, dipotong), woman (wanita), rice field (sawah), front (depan), use (memakai, dipakai), rice-knife (ani-ani), knife (pisau), back (belakang), man (laki-laki), shed (pondok), a few (beberapa), tie up (mengikat, diikat), also (juga), carry on a pole (memikul, dipikul), carrying pole (pikulan), pole (tongkat), carry (membawa), things (barang-barang), unhusked rice (padi), mountain (gunung), more (lagi).

Presentation: The story is presented together with a picture showing a rice harvest.

Lesson 24, part 2:
Material: Same as lesson 24.

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Lesson 24, part 2,(cont.)
Presentation: words from the story are to be identified with numbered portions of the same picture used in lesson 24 part 1.(pulau Jawa, gambar, sawah, padi, wanita, ani-ani, pisau, pondok, laki-laki, pikul, tongkat, gunung.)

Lesson 24a. Material: Same as for Lesson 24, with emphasis on verbs, and on three stages of rice. Vocabulary: pound (menumbuk, ditumbuk), husked, uncooked rice (beras), cook (memasak, dimasak), cooked rice (nasi).
This person is cooking rice; cooked rice is called nasi (Orang ini sedang memasak beras; beras yang sudah dimasak, namanya nasi).

Presentation: Sentences to be identified with pictures 1-5.

Lesson 24b. Material: Same as for Lesson 24, with emphasis on verbs, and on stages of rice harvest. Vocabulary: dry (kering, mengeringkan); This man is carrying the rice that was cut (laki-laki ini sedang memikul padi yang sudah dipotong itu); thus, the use of relativizers.

Presentation: Sentences to be identified with pictures 1-5, with more than one sentence per picture. Then the entire story from lesson 24 is read again.

Lesson 25. Material: Time words: year (tahun), month (bulan), week (minggu), day (hari), date (tanggal), today (hari ini), yesterday (kemarin), tomorrow (besok), day after tomorrow (lusa), to come (yang akan datang), past (yang lalu), Sunday (hari Minggu), Monday (hari Senin), Tuesday (hari Selasa), up to (sampai), up to and including (sampai dengan), the same as (sama dengan).

Presentation: Sentences to be identified with calendar pictures in Figure 25.

Lesson 25a. Material: Same as for lesson 25, with emphasis on dates and days of week. Vocabulary: Thursday (hari Kamis).

Presentation: Sentences to be judged true or false with reference to a calendar in Figure 25a.

Lesson 25b. Material: Same as lesson 25, with emphasis on the days of the week and the words for tomorrow, yesterday, etc. Vocabulary: Wednesday (hari Rabu), Friday (hari Juma'at), Saturday (hari Sabtu). If tomorrow is Tuesday, the day after tomorrow is Wednesday (Kalau besok hari Selasa, lusa hari Rabu), etc.

Presentation: Sentences are to be completed by use of a numbered list of the days of the week.

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Lesson 25c. Material: Same as for lesson 25.

Presentation: A short listening passage is given, using the days of the week, etc. in a story. Then true-false questions are asked about the story.

Lesson 26. Material: The use of the suffix -kan as benefactive, causitive, and transitivisor: Bambang buys a cake for Tati(Bambang membelikan Tati kue) vs. Mrs. Sulaiman puts a book in the cupboard (Bu Sulaiman memasukkan buku kedalam lemari). Also the imperative: Bang, buy me a cake, OK? (Bang, belikan saya kue, ya?), Tiek, blacken that picture of a cat.. (Tiek, hitamkan gambar kucing itu). Vocabulary: Cupboard (lemari), fingernails (kuku), , please (help me) (tolong).

Presentation: Sentences to be identified with pictures 1-9.

Lesson 26a. Material: Use of sugfix -kan as transitivisor, benefactive, causitive (combination of lessons 26 and 22).

Presentation: Sentences with blanks are given, to be completed with words from a numbered list, with reference to pictures in figure 26a.

Lesson 26b Material: Same as for lesson 26.

Presentation: Sentences are to be judged as grammatically correct or not.

Lesson 27. Material: Reading Comprehension. Vocabulary: tall (tinggi), reflection (bayangan), wave (ombak), water (air), sea (laut), boat (perahu), story of a building (tingkat), length, long (panjang), sail (layar)., sand (pasir).

Presentation: A description of a beach scene is read, then vocabulary items identified with reference to numbers on a picture of that scene.

Lesson 27, part 2.

Material: Same as for lesson 27, plus vocabulary: call (menyebut), get (up) on (naik), beach (pantai), or (atau), clear (jernih).

Presentation: The story from lesson 27 is read again, followed by multiple choice questions, true-false sentences, and sentences with blanks to be filled in with reference to the story.

Lesson 28. Material: Reading comprehension, review of lessons 22-27.

Presentation: A listening passage is read, and multiple choice and true-false questions are asked, with reference to the story and to Figure 28.

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Lesson 28, part 2.
Material: Additional time words: hour (jam), now (sekarang), not yet (belum), past (lewat), good morning (selamat pagi), good afternoon (selanat siang), good evening (selanat sore), good night (selamat malam) Vocabulary: sleep (tidur), get up (bangun).
Presentation: Sentences are to be identified with pictures 1-10.

Lesson 28, part 3.
Material: Reading comprehension, including numbers, -kan, etc. Vocabulary: come (datang), age (umur), mother (ibu), meet (menjemput), presents (oleh-oleh).

Presentation: New vocabulary are explained on a handout, a story is read, and multiple choice and yes-no questions are asked about the story.

Lesson 29. Material: terms for family members: parents (orang tua), children (anak), older sibling (kakak), younger sibling (adik), mother(ibu), father (ayah). Also ordinal numbers: first (pertama), second (kedua), third (ketiga).

Presentation; Multiple choicequestions are asked with reference to a short listening passage and diagram. Then students are asked to fill in blanks in sentences with reference to a numbered list of words.

Lesson 29a. Material: Same as for lesson 29, with additional vocabulary: grandmother (nenek), grandfather (kakek), grandchild (cucu), die (meninggal), happy (senang), often (sering), visit (mengunjungi).

Presentation: A listening passage is given, multiple choice and true-false questions asked about it.

Lesson 30. Material: Reading comprehension: Vocabulary: mountain peak (puncak), mountain side (lereng), foot (kaki), hill (bukit), sun (matahari), ray (sinar), rise (terbit), set (terbenam).

Presentaion: A reading passage is given, vocabulary presented by means of numbered items in a picture.

Lesson 30a. Material: same as lesson 30.

Presentation: The same reading passage, followed by true-false questions and sentences with blanks to be filled.

Lesson 31. Material: Vocabulary for reading comprehension: pedicab (becak) Back of a person (punggung se orang), buyer (pembeli), seller (penjual). Nominalization suffix pe-.

Presentation: Vocabulary presented with reference to a numbered picture, then a reading passage, then sentences with blanks to be filled.

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Lesson 31a. Material: Additional vocabulary for reading comprehension: jar (stoples), glass (kaca), checked shirt (kemeja kotak-kotak), plain shirt (kemeja polos), Muslim hat (peci), hat (topi), syrup (setrop), cakes (kue-kue).

Presentation: Words to be identified with numbered items in Figure 31a, then another story about the picture is presented, incorporating material from lesson 31 as well.

Lesson 31b. Material: Same as for lesson 31a, emphasis differences between verbs with ber- (stative) and with meN- (active).

Presentation: Sentences with blanks to be filled, with reference to a numbered list.

Lesson 31c. Material: Continued reading comprehension as description of the same picture for lesson 31. New vocabulary: cart (kereta), push (dorong), see (lihat), go around (berkeliling), while (sambil), busy (sibuk), pieces (potongan), young (muda).

Presentation: The new vocabulary is given on a hand-out, and a more detailed description of the picture (figure 31c) is read. True-false and multiple choice questions about the story are then to be answered.